

Users' Reactions to the Primer on Tree Registration Policies: Lessons for Designing Extension Materials and Improving Information Flow

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Accepted: 13 May 2009 / Published online: 26 June 2009
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Abstract In the Philippines, only a few farmers and plantation owners register their tree farms with the Department of Environment and Natural Resources (DENR), the office in charge of tree registration. One of the major reasons is their lack of knowledge of government policy on tree registration. To help improve the flow of information and understanding of tree registration policies among smallholder tree farmers and other stakeholders, a *Primer on Tree Registration, Harvesting, Transport and Marketing Policies on Private Land* was developed. Produced through the participation of stakeholders, including tree farmers, the DENR, and local government officers, police, and timber dealers, the Primer is highly visual and has been released in English as well as Waray–Waray and Cebuano dialects. This paper reports findings of focus group discussions conducted to gauge user reactions to the Primer. The Primer was considered as a valuable source of information about tree registration policies. Aside from being comprehensible, FGD participants found it attractive, perceived it to be intended for them and free from content that confused them. However, farmers suggested that illustrations need to be improved by making the persons portrayed more presentable and reflective of their actual tree farm operations. Participants said that aside from the Primer, the flow of information on tree registration policies could be improved through the use of multi-media including posters, radio broadcasts, and presentation in seminars for farmers.

Keywords Field evaluation · Perception · Strategic communication · Tree farming · Leyte

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Introduction

In the Philippines, the need to strengthen dissemination of tree registration policies has been emphasized in many studies which invariably show that while tree registration is a major requirement for marketing farm-grown logs and sawn timber, only a few farmers and plantation owners have been able to register their trees with the DENR (Emtage et al. 2004). One of the major reasons for the low registration rate is their lack of knowledge and understanding of government policy and regulations for tree registration. Only a few farmers claim to know how to register trees while others think that registering trees is costly. Herbohn et al. (2004) presented evidence relating to large differences in the rates of tree registration between the Community Environment and Natural Resource Offices (CENROs) throughout Leyte Island. It appears that differences are due largely to the complexity of the regulations and variations in the way CENRO personnel understand and implement them.

A ‘Primer’ was developed to help improve the flow of information and understanding of tree registration and harvesting policies, and transport and marketing regulations on private land, among concerned stakeholders. Designed to provide basic information on tree registration policies (Gordon et al. 2007), the Primer was produced as part of the project on *Improving Financial Returns of Smallholder Tree Farmers in the Philippines* (ACIAR project ASEM/2003/052) funded by the Australian Centre for International Agricultural Research. The design of the Primer was a product of the collaborative efforts of farmers, researchers, DENR staff, and timber buyers. The Primer has been distributed to selected users and comes in three versions—English, Waray–Waray, and Cebuano.

Experiences in communication projects invariably point to the need to determine the intended audience’s reactions to communication material prior to mass production. The reason is that audience’s reactions to a communication serve as a measure of the likelihood that the communication will be effective (Bertrand 1978; Haaland 1984; US Department of Health and Human Resources 1984). For example, because farmers have a pictorial vocabulary that is unique to their own culture (Gravoso and Stuart 2000), this pictorial vocabulary warrants consideration in developing illustrations for communication materials designed for farmer groups. The need to produce materials that fit the culture of the people has been suggested by the US Department of Health and Human Services (2002), which notes that culture is the predominant force shaping values and behaviour.

This study was conducted to generate information that can help improve the Primer’s effectiveness, and focuses on the factors of effectiveness discussed by Bertrand (1978), namely comprehensibility, attractiveness, acceptability, self-involvement, and persuasiveness.

The Primer on Tree Registration Policies

The process of developing the Primer followed participatory and collaborative methods. Stakeholders including tree farmers, timber dealers, staff of CENROs, the

police, and university researchers participated in the design and development activities, through a series of workshops and small group drafting work. A detailed description of development of the Primer can be found in Gordon et al. (2007). Prior to printing and release of prototype copies, the Primer was subjected to evaluation by DENR staff to check on the accuracy of the information it contained. Upon approval by the DENR staff, the prototype copies were printed. Figure 1 depicts the cover pages.

Research Method

The study elicited perceptions of the effectiveness of the Primer and sought suggestions for its improvement, through a series of focus group discussions (FGDs). The FGD is recognized as an effective method for stimulating discussions of issues among project beneficiaries (e.g., Krueger 1988; Debus 1988).

In the series of FGDs, the participants consisted of farmers, extension workers, officers of the Community Environment and Natural Resources Office (CENRO), and the Local Government Units (LGUs). Participants from the LGUs were composed of the staff of the municipal agricultural officer (MAO) who were mostly the local extension workers, and officers of the Philippine National Police (PNP), Bureau of Internal Revenue, and Development Planning Office. These offices are integrated into the LGUs to deliver the services required by their constituents. These groups of participants were chosen because they were the main intended audience of the Primer. Individual participants from the various groups were selected on the basis of their involvement and interest in plantation forestry.

The FGDs were conducted in the municipalities selected by the ACIAR project on *Improving Financial Returns of Smallholder Tree Farmers in the Philippines*. Table 1 summarizes the sites and the groups who participated in the FGDs. The FGDs typically involved 10–12 participants, and were coordinated by either the CENR officer or the Municipal Agricultural Officer (MAO). FGD participants in the



Fig. 1 Cover pages of the English, Cebuano, and Waray–Waray versions of the Primer

Table 1 Locale of the FGDs and the participants

Site	Farmers	Timber dealers	LGUs ^a	CENRO
Libagon	Yes	Yes	Yes	No
Maasin City	Yes	No	Yes	Yes
Bato	Yes	Yes	Yes	No
Baybay	No	No	No	Yes
Albuera	No	No	No	Yes
Isabel	Yes	Yes	Yes	No
Leyte, Leyte	No	No	Yes	No
Palo	No	No	No	Yes

^a Participants from the LGUs were composed of DA technicians, police, and staff of the various departments of the local government units at the municipal levels

Table 2 Brief description of the factors of effectiveness used in evaluating the Primer

Factors of effectiveness	Description	Key question
Comprehensibility	Extent to which the 'Primer' was perceived as understandable by the respondents.	What for you is the message of this Primer?
Attractiveness	Extent to which the 'Primer' was perceived as 'catchy' by the respondents.	What part of the Primer attracts you?
Acceptability	Extent to which the 'Primer' was perceived as acceptable to the respondents.	Did you notice some parts of the Primer that may offend people like you? Are there parts in the Primer which annoy you?
Self-involvement	Extent to which the 'Primer' is perceived as intended for them.	For whom do you think this Primer is intended?
Persuasiveness	Extent to which the 'Primer' was found encouraging them to do something.	Does the Primer encourage you to do something? What action does the Primer suggest you to take?

farmer groups were all male, claiming that they are the major decision-makers in their farm activities. For the extension, LGU and CENRO groups, participants were dominated by females, most of the staff in these offices being female.

The FGDs aimed to gather information on participants' exposure to the Primer, and their perceptions of the comprehensibility, attractiveness, acceptability, self-involvement, and persuasiveness of the Primer (Table 2). They were also asked to suggest other means to disseminate information on tree registration policies.

The FGDs were usually conducted in municipal offices with a VSU faculty member in development communication serving as moderator. Prior to the discussion, participants were first told about the purpose of the activity and it was stressed that everyone's opinion is equally important. More specifically, they were told that their comments and suggestions would be used as guides in revising the Primer.

Two secretaries recorded the proceedings of the discussion, one recording the discussions in a notebook and the other writing highlights of the discussion on a

large Manila sheet placed in front of participants. Before concluding the FGD, the issues discussed and recorded by the secretaries were summarized, and highlights were recorded on Manila paper. In general, participants actively contributed ideas. The FGDs typically lasted for about 2 h, and were terminated when the researchers noted that no new information was emerging from the discussions.

Findings from the Focus Group Discussions

Farmers' Feedback

The study solicited feedback from farmers. Table 3 summarises their comments and suggestions and presents the revised illustrations. Based on the unanimous suggestions of the participants, the illustrations were developed in colour.

Comprehensibility

Data obtained from the farmers indicated that the Primer is understandable. This could be gleaned from the answers to the question, 'What do you think is the message this Primer wants to convey?' According to the farmers, the Primer encourages them to register their tree plantations, and informs them about the procedure for registration, as well as the legalities in harvesting, transporting, and marketing timber. Farmers also said that the Primer is easy to read and understand because of the illustrations.

Attractiveness

According to the farmers, the Primer is attractive, particularly because of the green cover. They said that when placed side by side with other publications, the Primer stands out. Farmers pointed out that one element that makes it attractive and worth picking up is the picture of a tree on the cover and the word 'trees' (*kahoy* in the farmers' dialect). According to them, after the landslides in Southern Leyte and mudslides in St. Bernard, Southern Leyte, people are once again appreciating the value of trees. These two landslides caused the loss of life of a significant number of people. Farmer-participants said that the inside pages of the Primer are attractive because of the illustrations.

Acceptability

Farmer-participants said that the Primer does not contain anything that offends or insults them. In general, they judged that all information it contained is true, especially those who already have registered their tree farms.

When asked to examine the visuals on the cover and inside pages, various comments and suggestions were made, as summarized in Table 3. About the previous set of illustration, farmers said that the idea of wearing a hat inside an office is unbecoming, and that they remove their hats as a sign of respect when

Table 3 Summary of respondents' comments and suggestions and the revisions recommended in the illustrations









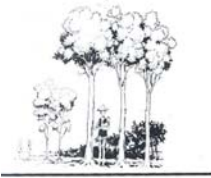







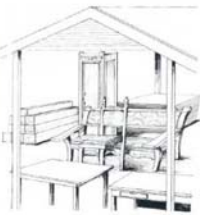

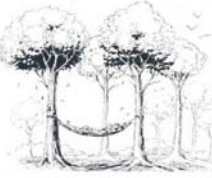

No.	Illustration	Illustration and critical comments by FGD participants	Revision based on the comments
1		Farmers' comments: farmer's behaviour unbecoming because he is wearing a hat inside an office Recommended revision: remove farmer's hat	
2 and 3		Suggests an illegal logging process because the farm does not have a farmer Recommended revision: draw a farmer on the farm.	
4		Farmer looks malnourished Recommended change: make farmer look healthy	
5		The trees are not timber trees but mango trees Recommended revision: make the trees look like timber trees	
6		Farmer looks as if he is carrying a monkey; farmer and child look unhealthy Recommended change: drawing should depict farmer and child strolling about on their tree farm	

Table 3 continued

7		Farmer and DENR staff look messy, unclean and unhappy Recommended revision: make them look clean and happy	
8		Cutting of the tree poses danger as the felled tree will hit the other farmers Recommended revision: change the positions of farmers	
9		This seems to be an under-the-table negotiation because there are no persons in the illustration Recommended revision: DENR staff should be with the policeman	
10		Furniture shop is empty; looks like a funeral home Recommended revision: fill the shop with more furniture and make it look more attractive	
11		Hammock or <i>duyan</i> too high; dangerous to the farmer sleeping; impossible for the farmer to get to it Recommended revision: lower the hammock (duyan)	

visiting a government office. They suggested that the farmer in the illustration should 'remove his hat'. The farmers also felt that due to the absence of a farmer or any person in illustrations 2 and 3, it appears that the drawing could be promoting illegal tree felling and transport operations. Thus, in the revision, the farm (illustration 2) should have a farmer. Likewise, the truck (illustration 3) should include people—preferably the timber owner and his companions.

For illustration 4, the farmers felt that the illustration portrays the farmer as uneducated, malnourished, poor, and a person who does not care about personal hygiene because the farmer looks dirty. In reality, according to them, when they have a visitor such as a CENRO staff, they wear tidy clothes.

As for illustration 5, farmers said that the trees look like mango trees. Timber trees are tall, while the trees in the illustration are short. They also said that in practice the branches of timber trees, even if trimmed, spread irregularly. In the illustration, however, the tree canopies are almost uniform.

For illustration 6, farmers observed that the tree plantations are unhealthy and seem to lack the care of the owner. The farmer is portrayed as malnourished. While some participants correctly identified that the farmer is carrying a child, others said that the farmer is carrying a pet—a dog or a monkey. Thus, they suggested that if that was a child, the illustration should portray the farmer as letting the child see the beauty of trees—like they are strolling around the farmer's tree plantation. To improve the illustration of a tree plantation, farmers suggested including a blooming plantation with many trees, not just a few.

With regard to illustration 7, farmers said that the DENR staff and the farmer look unhygienic (a perception that could have been influenced by the dark shading in the illustration). However, they commended that the farmer is observing office etiquette in that he has removed his hat. They stressed that the farmer should be portrayed as clean because in reality, when they visit an office, they try their best to observe proper grooming.

For illustration 8, farmers said that the illustration depicts a dangerous way of cutting trees. They pointed out that there are people in the direction that the trees would fall. They also commented that the size of the fallen trees seems unbelievable. They reported that based on experience, when they stand beside a newly felled tree, the logs should only be knee-high. They therefore suggested that in the revision, the position of the persons be changed and that the appropriate proportion of the log diameter and person's height be observed.

For illustration 9, farmers felt that it depicts an illegal operation because they could not see DENR personnel and police officers. In their opinion, a truck carrying timber without any person visible, aside from the driver, must be illegal. Thus, they suggested that in the revised version, DENR personnel and PNP officers should be standing near the truck talking with the driver and the owner of the timber, with the owner showing the papers needed.

As for illustration 10, farmers observed that the furniture shop looks empty. Some even said that it resembles a funeral home because of the piece of furniture in the back of the shop looks like a coffin. Thus, they suggested 'filling' the shop with more furniture products and making it more attractive, noting that adding people (customers) in the drawing will make the illustration less confusing.

With regard to illustration 11, farmers said that the hammock (*duyan* in the Cebuano dialect) is too high, and would be impossible to climb into. Generally, they did not like this illustration because having a 'duyan' depicts laziness. To take a rest (i.e., a *siesta*), farmers said that they just build a small hut. However, other farmers said that they actually have hammocks on their tree farm for their children who accompany them to the field.

Self-Involvement

When asked, 'For whom do you think is this Primer is intended', farmers said that the Primer is for farmers like themselves, police, DENR CENRO staff, timber dealers, and others interested in tree growing.

Persuasiveness

Farmers stated that the Primer encourages them to register their tree plantations to avoid problems during harvest and during timber transport. They also pointed out that the Primer encourages them to register their plantation immediately upon establishment.

Problems Related to Tree Registration Experienced by Farmers

Aside from reactions to the Primer, the study also sought to determine the problems hindering tree registration in the respective localities. The problems reported, by FGD site, are summarised in Table 4. Surprisingly, farmers from Libagon and Maasin said that they have not encountered problems in registering their tree farms.

One problem reported by other CENRO districts is the distance to the CENRO office where they have to file tree registration. According to them, tree registration services are inaccessible because the CENRO serving their municipality is too far from their farm. A case in point is the farmers from Bato who have to file registration papers at Baybay City, about 30 km away from Bato town.

Another problem, according to farmers, is that the total cost of tree registration is too high. Farmers from Bato, Isabel, and Leyte, Leyte said that contrary to the policy that tree registration is free, in reality it is expensive because they have to pay a per diem (Php 800, USD16) and gasoline allowance for CENRO staff who inspect their tree farm. They also have to provide meals and snacks. Another problem reported by farmers is the fare for travelling to the CENRO Office. The following statement by a farmer captured this sentiment: 'Fare alone from Bato to Baybay is 35 pesos. Aside from fare, you need to spend for food. The problem, however, is that we are unable to get our registration papers in one day. We still need to go back to follow-up these papers'. A similar story was narrated by farmers in Isabel, who by law have to go to Albueria in Leyte to complete and submit their tree registration application form. Travel from Isabel to Albueria involves a 1-h bus ride to Ormoc and then a 30-min jeepney ride to Albueria.

Table 4 Problems related to tree registration reported by tree farmers

Problem encountered	Local government unit				
	Libagon	Maasin	Bato	Isabel	Leyte, Leyte
CENRO is too far	No	No	Yes	Yes	Yes
Registration cost is high	No	No	Yes	Yes	Yes
Registration takes time	No	No	Yes	Yes	Yes

Another complaint concerns the time taken for tree registration to be completed. This problem arises, for example, when the person-in-charge of tree registration is on leave or away. 'This situation requires us to go back to Albuera which means another expense', according to a farmer from Isabel.

Feedback by the Timber Dealers

As part of the intended audience of the Primer, reactions of the timber dealers were sought.

Comprehensibility

According to the timber dealers, the Primer is about the importance and the process of registering private tree plantations. They pointed out that tree farmers need to follow the procedures and guidelines to avoid problems during harvesting, and timber transport and marketing. For their part, they said that they usually ask the tree growers to show the required papers when purchasing timber.

Attractiveness

The timber dealers rated the Primer as attractive on the grounds that its dominant green colour, it deals with trees, it is illustrated, and it is easily noticed when placed together with other publications. Like the farmers, timber dealers felt that tree planting has again become a 'hot' topic in the light of environmental catastrophes that have struck Leyte Island in recent years.

Acceptability

The timber dealers did not see anything in the Primer that would offend or annoy them. However, they suggested that the illustrations need to be made more realistic, that is, not cartoon-like.

Self-Involvement

When questioned about the intended audience of the Primer, the timber dealers identified farmers, timber dealers like themselves, agricultural technicians from the municipal office, police officers, and anyone else interested in trees. They reiterated that the Primer is an important reference in avoiding hassles during harvest, transport, and marketing of timber.

Persuasiveness

According to the timber dealers, the Primer suggests to tree growers that they should register their tree farms. Considering that dealers have to buy timber from legal sources only, they said that they would inform farmers about the value of registering their tree plantations.

Reactions from the Local Government Unit Staff and CENROs

LGUs officers including local extension workers of the MAO, police officers, Philippine National Police (PNP), Bureau of Internal Revenue (BIR), and Municipal Development Planning Office (MPDO) were included in the FGDs conducted at Libagon, Maasin, Bato, and Isabel. In general, these LGU staff approved of the Primer. However, they concurred with the suggestion to improve the illustrations. A case in point is the illustration of the PNP inspecting the papers related to the delivery of lumber (illustration 9). They said that such an inspection is done by both the police and the DENR, so the illustration should reflect this fact. Further, to improve the Primer, participants from the LGUs suggested including local names and pictures of the premium tree species. They pointed out that tree species have different names in different regions or provinces in the Philippines. A picture will promote understanding of these species.

In general, the staff of the Community Environment and Natural Resources Offices (CENROs) welcomed the Primer. However, each CENRO has their own interpretation of the provisions of the policies. As a result, they also use forms unique only to their CENRO. The CENRO staff also agreed to include the local name and photos of the premium species listed. They explained that tree species in the Philippines are known by different names and in dialects. Showing the pictures will promote common understanding of these premium species.

Suggestions to Improve Flow of Information on Tree Registration Policies

FGD participants were asked for their suggestions on how to improve the flow of information on tree registration policies, and provided the comments as summarized below.

Distribution of the Primer

Timber dealers said that aside from the local government units, barangay officials and CENROs, they could help distribute the Primer to farmers. They stressed their motivation to encourage farmers to register their tree plantations to ensure their timber purchases are from legal sources. Extension workers and CENROs had similar suggestions. The extension workers stated that because of their lack of knowledge of forestry laws, the Primer will be of great help to them.

Use of Posters

Aside from the Primer, participants suggested the use of a poster or poster-calendar. They said that a poster or poster-calendar highlighting the simple steps and requirements of tree registration could be distributed and placed in public view in strategic places, such as barangay halls and stores.

Use of Radio

The use of radio programs has also been suggested. FGD participants pointed out, however, that their communities are not reached by the broadcasts from Visayas State University (VSU) radio station DYAC (DY for radio stations in the Visayas and AC for agricultural college). Those who participated in the School-on-the-Air, a series of radio broadcasts on tree registration policies produced by Radio DYAC in early 2007, acknowledged the potential of radio programs to reach intended users because these programs focus on agriculture, health, nutrition, and other relevant issues. In Libagon, they suggested broadcasting information on tree registration on Radio DYSL (SL meaning Southern Leyte), also a government-owned station.

Seminar Presentations

All groups consistently suggested conducting seminars or even briefing sessions on tree registration policies and procedures, especially for barangay captains and other barangay leaders. They felt that these leaders could help disseminate the information to their constituents. In their respective barangays, these village leaders could explain the value of—and procedures involved in—tree registration.

Extension workers commented that if the suggestion to involve them in tree registration activities is implemented, they need to thoroughly understand the relevant policies, requirements and procedures. The extension workers stated that because tree registration falls under the mandate of DENR, they lack knowledge of its procedures, and stressed that their current extension activities related to tree growing focus on fruit trees. To maximize impacts of the training, extension workers said that appropriate forestry support materials such as instructional videos should also be provided to them.

Implications and Recommendations

Based on the feedback gathered from the FGDs, the Primer has been perceived as effective, and rated as understandable, attractive, acceptable, self-involving, and persuasive. However, respondents gave a number of suggestions to improve the material. Among these are the revisions of the illustrations and addition of the local names and photos of the premium species.

In view of the farmers' comments on the illustrations, it is clear that acceptability of extension material is improved if it is designed based on the culture and day-to-day appearance of the farmers. According to Gravoso and Stuart (2000), farmers' day-to-day appearance and the images they see on their farms and communities, constitute their pictorial vocabulary. Thus, illustrations should be designed based on these images.

The findings of the National Health Institute of the US Department of Health and Human Services (2002) are similarly confirmed in this study. Their portrayal as observing appropriate behaviour and being happy and 'equal' in status to the DENR field staff appeared important to the farmers. This is obvious in the repeated

suggestions to 'remove' the farmer's hat in the office and to project farmers as 'clean' not only in the office but even on their farms, and to redesign illustrations so that the farmers do not appear to be engaged in illegal activities. It would appear that the details (such as shading) in the original illustrations underestimated the level of sophistication of the target audience.

In terms of their experiences in registering their tree farms, farmers in Bato, Isabel, and Leyte, Leyte raised issues about the distance of the CENROs, expenses involved, time needed to process their tree registration, and the low price of timber. In view of these problems, farmers suggested some mechanisms to simplify the tree registration process and make the services more accessible to them. One of the strategic ways is for the LGU office, through its Municipal Agricultural Office (MAO), to accept tree registration applications and deputize extension workers to perform tree registration activities.

FGD participants also suggested the use of posters, radio and seminars to improve the flow of information on tree registration policies. This recommendation underscores the need to use a multi-media approach to information dissemination, as suggested by researchers in communication for rural development. Experience from the field shows that communication activities that apply the multi-media approach could reach much greater numbers of the intended audience.

Acknowledgements We wish to thank the farmers and staff of LGUs, CENROs, and other agencies who participated in the FGDs. We also express our appreciation to Domingo 'Bebot' Flandez for designing the illustrations based on the feedbacks generated in the FGDS.

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